Amendments to the Specification:

In the DESCRIPTION OF THE PREFERRED EMBODIMENTS, please replace 2 paragraphs, starting with the 3rd paragraph on page 16 and reaching upt o page 18, with the following 3 paragraphs, where the first paragraph is new and the second and third are amended paragraphs:

The translinear amplifier in **Fig. 5**, imbedded within said circuit to control the switching operation **Switch-Ctrl** compares the differential voltage at its inputs **Vinp-5** and **Vinn-5** and, through various current mirroring techniques, provides the same differential voltage at its outputs **Voutp-5** and **Voutn-5**; i.e. the output difference of said amplifier strictly follows the input difference, independent of the absolute voltage level at the outputs. Similar to Differential Amplifiers, a Translinear Amplifier has differential inputs and has differential outputs. In fact, the outputs are floating together, however the signal **Voutn-5** may also be forced to any desired reference level – then the voltage at **Voutp-5** will always follow that forced reference level with a difference of **Voutp-5 - Voutn-5 = Vinp-5 - Vinn-5**. It should be noted at this point, that signal **Voutn-5** effectively operates as an input signal, though it is drawn on the right side of the amplifier symbol, which normally represents output signals - **Voutn-5** operating as an input allows to apply a desired output reference level,

A single capacitor switching stage, as shown in **Fig. 5**, contains a circuit to control the switching operation **Switch-Ctrl** (also called hereafter the switch control circuit), a switching device **SW** and a small capacitor **Cap**. Said circuit to control the switching operation receives a signal, dependent on the tuning voltage **Vtune**, an input reference signal **Ref-in-5** and an output reference signal **Ref-out-5**, where said input reference signal **Ref-in-5** is then provided to the input reference point **Vinn-5** and said output reference signal **Ref-out-5** is then provided to the output reference point **Voutn-**

5. The translinear amplifier in **Fig. 5**, imbedded within said circuit to control the switching operation **Switch-Ctrl**, possibly together with some electronic glue components, compares the differential voltage at its inputs **Vinp-5** and **Vinn-5** and~~,~~ ~~through various current mirroring techniques and~~ provides the same differential voltage at its outputs **Voutp-5** and **Voutn-5**; i.e. the output difference of said amplifier strictly follows the difference at said amplifier inputs, ~~independent of the absolute~~additionally controlled by applying a reference voltage level at ~~the~~ outputs **Voutn-5**. Said switch control circuit **Switch-Ctrl** then provides a switch control signal **Vsw**, based on said translinear amplifier's output signal **Voutp-5** to said switching device **SW**. Switch control signal **Vsw** then drives a current switching device **N1-5** with the gate voltage **Vg-5** to switch on said individual small capacitor **Cap-5** in the proposed steady ramp-up/ramp-down manner. Switching in said steady ramp-up/ramp-down manner results in the desired variable capacitance **Var-Cap-5** of said single capacitor switching stage.

Each of said translinear amplifiers can operate at a different absolute voltage level at their input and work independent at another output level. In this way the network to generate the reference voltages can be optimized independently for each stage, because the voltage level best suitable for the control operation of each switching transistor can be freely selected. In the circuit shown in **Fig. 6** as an example, a common reference circuit **RefCirc** individually provides the input and output reference voltages to each of said switch control circuits **Switch-Ctrl** with their imbedded translinear amplifiers **Tr.Amp 1** to **Tr.Amp n**, As described with Fig. 5, said translinear amplifiers can individually adjust between said input reference voltage levels **Ref-in 1** to **Ref-in n** and said output reference levels **Ref-out-1** to **Ref-out-n**. Then each of said translinear amplifiers provides its signal to control the switching devices **Sw 1** to **Sw n**,

which in turn switch on the individual small capacitors **Cap 1** to **Cap n** in the proposed steady ramp-up/ramp-down manner. Each of said capacitor switching stages connects to one capacitor **Cap k** out of a set of small capacitors. Each of said capacitor switching stages is controlled through the common input signal **Vtune** and an individual input reference **Ref-in k**. All of these stages k = 1 to n have basically identical functional characteristics.

Please replace the last paragraph on page 19 with the following paragraph:

In case a specific member of said switching devices, as shown in **Fig. 6**, is switched fully-on, the parallel connection of the capacitor (in series with said switching device in view) is fully effective (i.e. is effective to 100 %). If however a specific item of said switching devices is switched fully-off, the parallel connection of the capacitor (in series with said switching device in view) is not effective at all (i.e. is effective to 0 %). While said switching device in view is operating within its steady ramp-up/ramp-down or steady transition phase, the capacitor may be effectively switched in parallel with any value between 0 % and 100 %. The effectiveness of the switching in parallel of said capacitor is well controlled through the translinear amplifiers **Tr.Amp 1** to **Tr.Amp n** and the relation of tuning and reference voltages, according to the input reference levels provided by the common reference circuit **RefCirc**. One can assume the steady transition area of RDS changing to be, for example, between the 2 % point and the 98 % point and define these limits as the desired end points of the steady transition area. Close to these end points, the linear operation of real switching devices come to a natural end.

Please replace the last paragraph on page 28 with the following paragraph:

Furthermore, a concept of this disclosure is to compensate the temperature deviation, caused by the temperature characteristics of the switching device; **Fig. 10b** presents this concept, which shows a temperature compensating circuit **Temp-Comp** in addition to said circuit to control the switching operation **Switch-Ctrl**, as shown in **Fig. 5**. One method is to use a device **N2-10** of the identical type of the switching device **N1-10** to produce a temperature dependent signal. A temperature compensating voltage, produced by said device **N2-10**, is added to the output reference signal **Ref-out-10**, now resulting in a temperature compensated output reference signal **Ref-out-c-10.** The input of said temperature compensating circuit **Temp-Comp** is connected to one of the output reference signals of the common reference circuit **RefCirc** of **Fig. 6** and ~~its~~ it's the output of said temperature compensating circuit **Temp-Comp** ~~is~~ then provide~~d~~s a compensated signal to the output reference point **Voutn-10** of the translinear amplifier. This compensation technique will mirror the exact equivalent of the temperature error into the switching control signal **Vg** and compensate its temperature error. The output reference point **Voutn-10** in **Fig. 10b** is the same point as the reference signals **Ref-out** in **Fig. 5**. Within each a set of multiple capacitor switching stages, there is one of said temperature compensating circuits.